UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/383,150	08/25/1999	RONG-FUH SHYU	3576BP/S295	6176

23363 7590 04/02/2003

CHRISTIE, PARKER & HALE, LLP
350 WEST COLORADO BOULEVARD
SUITE 500
PASADENA, CA 91105

EXAMINER
ABRAHAM, FETSUM

ART UNIT	PAPER NUMBER
2826	

DATE MAILED: 04/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/383,150	Applicant(s) SHYU, RONG-FUH
	Examiner Fetsum Abraham	Art Unit 2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

FINAL REJECTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **YUKIO (JP 2-294061).**

As for claim 9, the document shows a structure/package in figures 1 and 2 comprising a unitary lead frame (13) having two chip positioning windows formed on it for receiving two IC chips, a plurality of internal connection leads (16) on the frame and adjacent to the windows adapted to be electrically connected to bonding pads (connecting points one the chips) in the widows, and specifically designed for internal communication purpose between the chips, a plurality of external connection leads (13 or 15) depending on which one of the chips functions as a driver/master or receiver/slave and designed to be electrically connected with bonding pads on the IC chips and serving as external communication means with external circuits. Although the prior art omits to classify the chips as master or slave as in the claimed invention, it is clear that the overall structure is generic to all types of chips available. Therefore, it would have been obvious to one skilled in the art to use the frame in the prior art for master/slave or any other circuits associated with testing, since semiconductor chips function differently and that lead

frames serve as the base carrier element for different types of chips because of its act recognized reliability in stabilizing semiconductor chips.

As for claim 10, the internal connection leads are wire-bonded to the bonding pads (see elements 16 and the contact points on the chips in figure 1).

As for claim 11, the external connection leads are wire-bonded to the bonding pads on the IC chips inside the windows (see elements 16 and the contact points on the chips in figure 1 where the contacting wires are (15)).

As for claim 12, the circuit operation in the claim language is common to all electronic elements functioning as a receiver and transmitter/master and slave. One of the chips in the prior art functions as a receiver of an external signal that triggers it to drive the receiver of its transmitted signals. The chips function as such since the external leads are used to transmit external signals into the package and the internal leads for mutual communication between the chips.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. .

See Taniguchi et al (6,134,161) where an IC with embedded test circuit is taught in the abstract.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner's response to applicant's argument

The applicant's argument that the prior art does not disclose the external leads are electrically connected to bonding pads on the IC chip in the window has been considered but found to be moot. This is because the subject matter is fully disclosed in the prior art. The connection points on the IC are on the chip and the points are in contact with external leads through wiring (15) on the surface of the IC (see figure 1).

As for the argument against the second relevant reference, it is only submitted to demonstrate that testing chips are commonly packaged on lead frame technology. Further more, the testing procedure of IC chips is as common as the process in claim 12. A signal has to be transmitted to the element on test to detect an expected response in order to declare the chip on test operational or defective.

Any inquiry concerning this communication should be directed to Fetsum Abraham at telephone number (703) 305,3793, or by E-mail at ***fetsum.abraham@uspto.gov.***

Any inquiry of a general nature or relating to the status of this application should be directed to the ***SPE of AU***:2826 at (703)308-6601, or the ***Group receptionist*** at (703) 308-0956.

Any inquiry of a general nature or relating to the status of this application should be directed to the ***SPE of AU***:2826 at (703)308-6601, or the ***Group receptionist*** at (703) 308-0956.

Fetsum Abraham

4/1/03